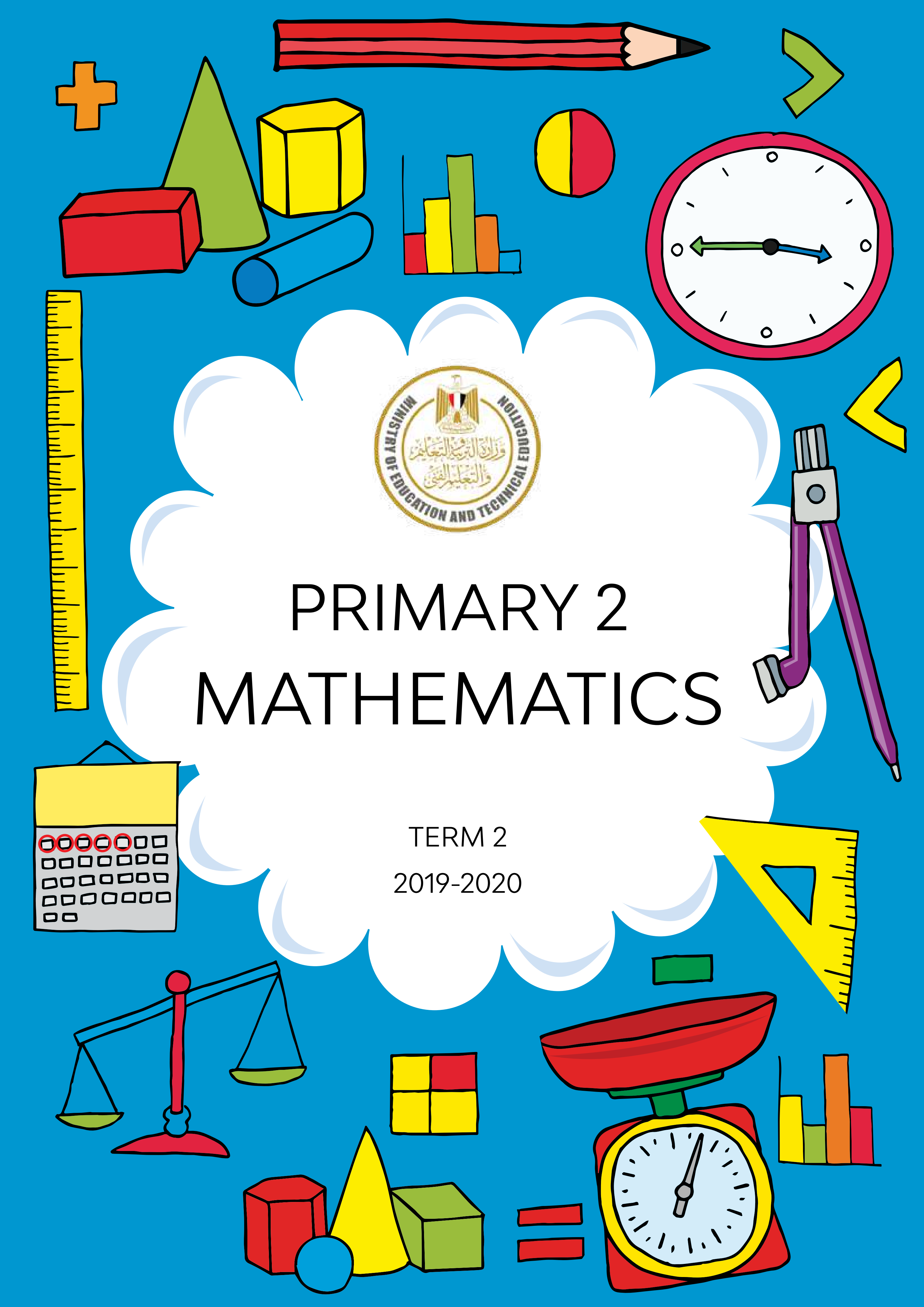

MINISTRY OF EDUCATION AND TECHNICAL EDUCATION
وزارة التربية والتعليم والتعليم الفني
PRIMARY 2
MATHEMATICS
TERM 2
2019-2020

FOREWORD

This is a pivotal time in the history of the Ministry of Education and Technical Education (MOETE) in Egypt. We are embarking on the transformation of Egypt's K-12 education system starting in September 2018 with KG1, KG2 and Primary 1 continuing to be rolled out year after year until 2030. We are transforming the way in which students learn to prepare Egypt's youth to succeed in a future world that we cannot entirely imagine.

MOETE is very proud to present this new series of textbooks, Discover, with the accompanying digital learning materials that captures its vision of the transformation journey. This is the result of much consultation, much thought and a lot of work. We have drawn on the best expertise and experience from national and international organizations and education professionals to support us in translating our vision into an innovative national curriculum framework and exciting and inspiring print and digital learning materials.

The MOETE extends its deep appreciation to its own "Center for Curriculum and Instructional Materials Development" (CCIMD) and specifically, the CCIMD Director and her amazing team. MOETE is also very grateful to the minister's senior advisors and to our partners including "Discovery Education," "Nahdet Masr," "Longman Egypt," UNICEF, UNESCO, and WB, who, collectively, supported the development of Egypt's national curriculum framework. I also thank the Egyptian Faculty of Education professors who participated in reviewing the national curriculum framework. Finally, I thank each and every MOETE administrator in all MOETE sectors as well as the MOETE subject counselors who participated in the process.

This transformation of Egypt's education system would not have been possible without the significant support of Egypt's current president, His Excellency President Abdel Fattah el-Sisi. Overhauling the education system is part of the president's vision of 'rebuilding the Egyptian citizen' and it is closely coordinated with the ministries of higher education & scientific research, Culture, and Youth & Sports. Education 2.0 is only a part in a bigger national effort to propel Egypt to the ranks of developed countries and to ensure a great future to all of its citizens.

WORDS FROM THE MINISTER OF EDUCATION & TECHNICAL EDUCATION

It is my great pleasure to celebrate this extraordinary moment in the history of Egypt where we launch a new education system designed to prepare a new Egyptian citizen proud of his Egyptian, Arab and African roots - a new citizen who is innovative, a critical thinker, able to understand and accept differences, competent in knowledge and life skills, able to learn for life and able to compete globally.

Egypt chose to invest in its new generations through building a transformative and modern education system consistent with international quality benchmarks. The new education system is designed to help our children and grandchildren enjoy a better future and to propel Egypt to the ranks of advanced countries in the near future.

The fulfillment of the Egyptian dream of transformation is indeed a joint responsibility among all of us; governmental institutions, parents, civil society, private sector and media. Here, I would like to acknowledge the critical role of our beloved teachers who are the role models for our children and who are the cornerstone of the intended transformation.

I ask everyone of us to join hands towards this noble goal of transforming Egypt through education in order to restore Egyptian excellence, leadership and great civilization.

My warmest regards to our children who will begin this journey and my deepest respect and gratitude to our great teachers.

Dr. Tarek Galal Shawki
Minister of Education & Technical Education

NAME: ____

CONTENTS

LESSON 61: APPLY

Directions: Match your banknotes to the banknotes pictured below. Then, write the value of each banknote.

BANKNOTE	VALUE

LESSON 61: MATH JOURNAL

Directions: Reflect on your learning. What did you notice about the different banknotes? deduce the relation between the numbers on each banknote and the goods and services each banknote might purchase? Write or draw your thinking.

LESSON 62: APPLY

Directions: Take turns being the Banker. The Banker chooses one banknote (20 LE, 50 LE, or 100 LE). Use your banknotes to create that amount. Write the amount in the first blank. Draw your answer in the second blank.

1. ______________ = ______________________________________

2. ______________ = ______________________________________

3. ______________ = ______________________________________



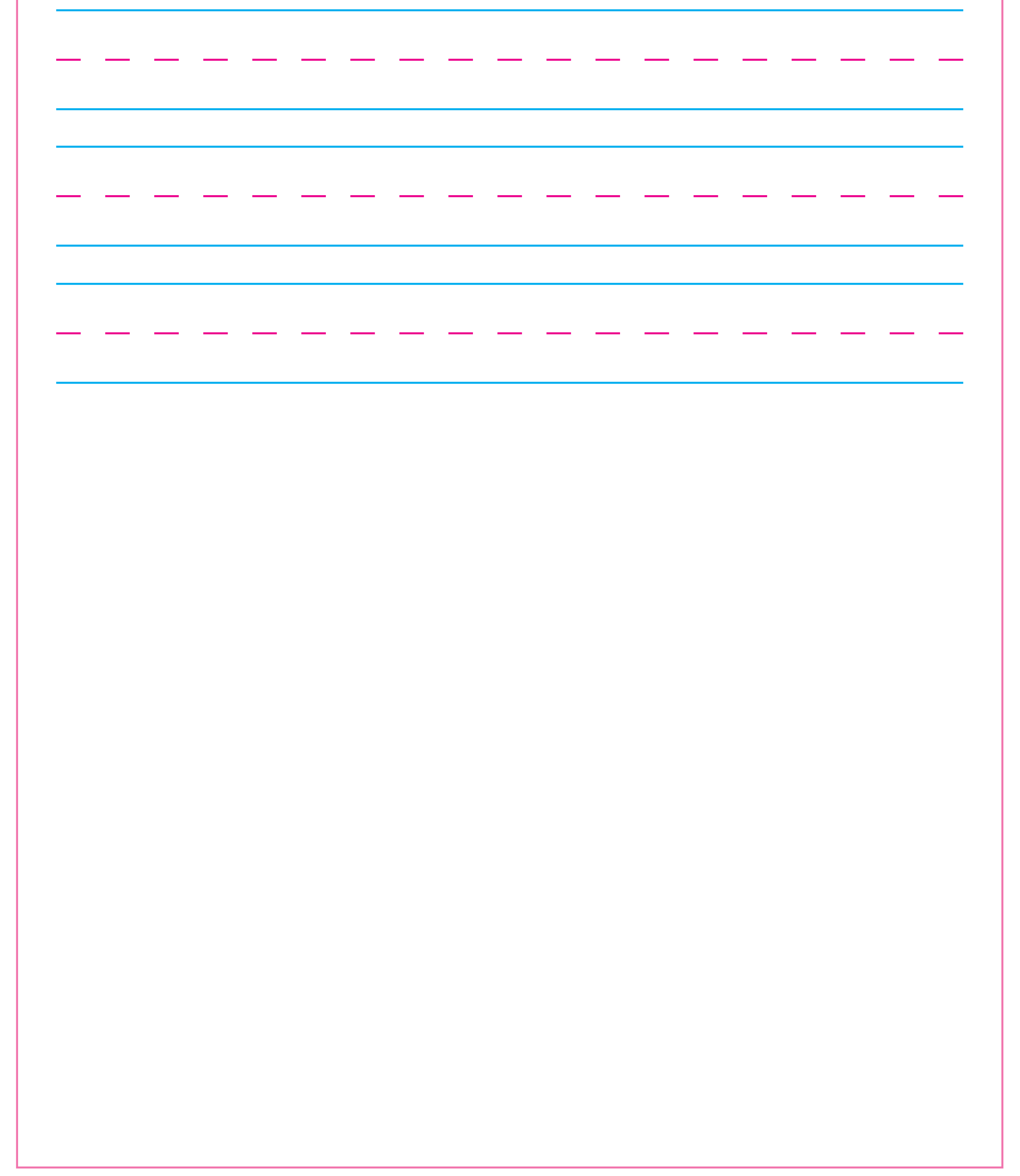
LESSON 63: APPLY

Directions: Use your banknotes to create each amount shown below. Draw the combination of banknotes you used to purchase each item.

1. Set of books: 28 LE 	2. Football: 206 LE 
3. Toy truck: 149 LE 	4. Video game: 427 LE 
5. Plush toy: 39 LE 	6. Board game: 126 LE 

LESSON 63: MATH JOURNAL

Directions: Reflect on your learning. Draw or write to explain the importance of knowing how to decompose numbers as you learn about money.



LESSON 64: APPLY

Directions: Add the money. Match each total to a price on the right by drawing a line to connect the dots.

100 LE	50 LE	1 LE	1 LE	1 LE

_____________ LE ●

10 LE	5 LE	1 LE	1 LE	1LE

_____________ LE ●

10 LE	10 LE	5 LE	1 LE	1 LE
1 LE	1 LE			

_____________ LE ●

100 LE	50 LE	10 LE	10 LE	10 LE
1 LE	1 LE	1 LE	1 LE	

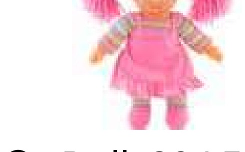
_____________ LE ●

10 LE	10 LE	10 LE	1 LE	1 LE
1 LE	1 LE			

_____________ LE ●

50 LE	10 LE	1 LE

_____________ LE ●



● Doll: 29 LE



● Scooter: 153 LE



● Roller skates: 61 LE



● Toy truck: 34 LE



● Basket of fruit: 18 LE



● Wagon: 184 LE

LESSON 64: MATH JOURNAL

Directions: Work with your Shoulder Partner to create combinations of banknotes that total 500 LE. Work quickly and record your work.

LESSON 65: APPLY

Directions: You have 500 LE to spend at the class store. Buy as many items as you can without going over your budget of 500 LE. Write each item you purchased and its price below. Be sure to keep track of how much you are spending.

Pack of pencils: 15 LE	Plush toy: 57 LE	Bicycle: 127 LE
Shoes: 450 LE	Shirt: 73 LE	Ball: 86 LE
Jacket: 335 LE	Candy: 5 LE	Scissors: 9 LE
Board game: 101 LE	Toy: 41 LE	Glue: 3 LE
Snacks: 17 LE	Book: 28 LE	Backpack: 292 LE

Item	Price	Add your prices here to keep track of your total

LESSON 65: MATH JOURNAL

Directions: Reflect on your learning. Answer the following questions:

- What did you think about and talk about while you were doing the activity?
- What was challenging about staying within your budget?
- What would you do differently if you had the opportunity?

LESSON 66: APPLY

Directions: Solve the story problems. Write your answer inside the following frame.

1. Ali and his brother put their money together to buy a video game. Ali had 42 LE and his brother had 57 LE. How much money do they have all together?

_________ LE

2. Salma was given 29 LE for buying somethings. She bought a basket of fruit for 14 LE. How many pounds does Salma have left?

_________ LE

3. Aya saved 33 LE in one month. The next month she saved 24 LE. How much money does Aya have in all?

_________ LE

4. Mostafa was given 99 LE for his birthday. He bought a new pair of shoes for 86 LE. How many pounds does Mostafa have left?

_________ LE

5) Tarek bought a book for 44 LE and a new football for 44 LE. How much did Tarek owe altogether?

_________ LE

LESSON 66: MATH JOURNAL

Directions: Reflect on your learning. Then, create your own money story problem. It can be an addition or subtraction problem.

LESSON 67: APPLY

Directions: Use your 1, 10, and 100 LE notes to build the amounts given by your teacher.

Place Value/Money Mat		
Hundreds 100 LE	Tens 10 LE	Ones 1 LE

LESSON 68: APPLY

Directions: Use your 1, 10, and 100 LE notes to solve the addition problems given by your teacher.

Place Value/Money Mat		
Hundreds 100 LE	Tens 10 LE	Ones 1 LE

LESSON 68: MATH JOURNAL

Directions: Reflect on your learning. Write about or draw something you are proud to have learned and something you are still working on.

LESSON 69: APPLY

Directions: Use your 1, 10, and 100 LE notes to solve the subtraction problems given by your teacher.

Place Value/Money Mat		
Hundreds 100 LE	Tens 10 LE	Ones 1 LE

LESSON 69: MATH JOURNAL

Directions: Reflect on your learning. How is regrouping to add like regrouping to subtract? How is it different?

LESSON 70: APPLY

Directions: Use the place value/money mat to solve the problems on the cards. Record your answers in the matching spot. (Look at the letters.)

A: __________ LE
B: __________ LE
C: __________ LE
D: __________ LE
E: __________ LE
F: __________ LE



Place Value/Money Mat		
Hundreds 100 LE	Tens 10 LE	Ones 1 LE

LESSON 70: MATH JOURNAL

Directions: Reflect on your learning. What do you know now about money that you did not know 10 days ago? Write about or draw your thinking.

LESSON 71: APPLY

Directions: Determine if the number is even or odd. Then record it in the chart.

Even	Odd
4	
6	
	7
10	

1 2 3 5 8 9 11 12

13 14 15 16 17 18 19 20

LESSON 71: MATH JOURNAL

Directions: Reflect on your learning. Do you notice anything that the even numbers or the odd numbers have in common? Is there anything you noticed as you were testing the numbers? What do you now know about odd or even? Draw or write your answers.

LESSON 72: APPLY

Directions: Double each number and then determine if the sum is even or odd.

Number	Double	Even or Odd?
1	1 + 1 = 2	Even
2		
3		
4		
5		
6		
7		
8		
9		
10		

Number	Double	Even or Odd?
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

LESSON 73: APPLY

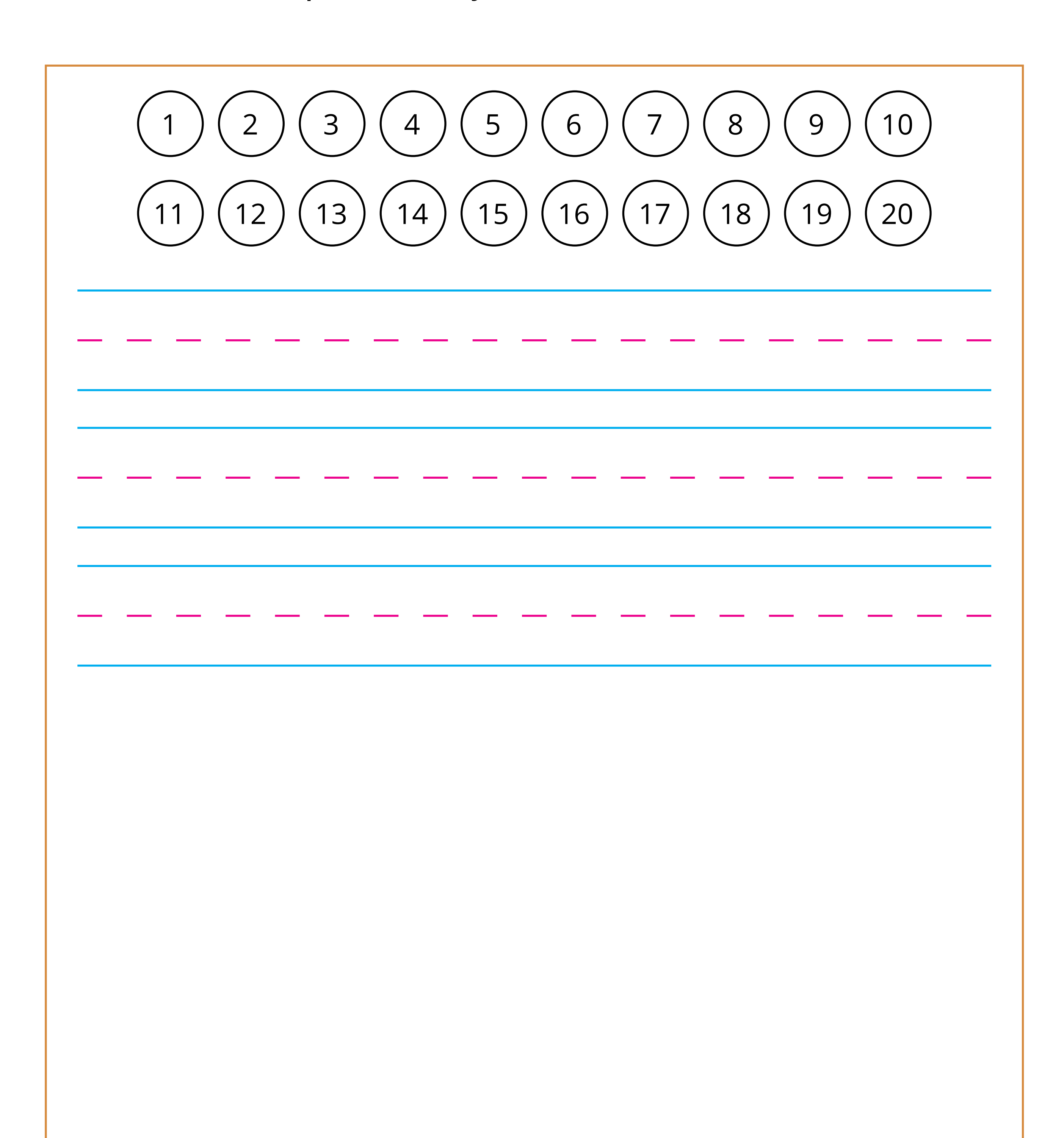
Directions: Choose two cards, record the addends as an addition operation, and find the sum.

addition operation	Sum	Even or Odd?
4 + 5		

Addition operation	Sum	Even or Odd?

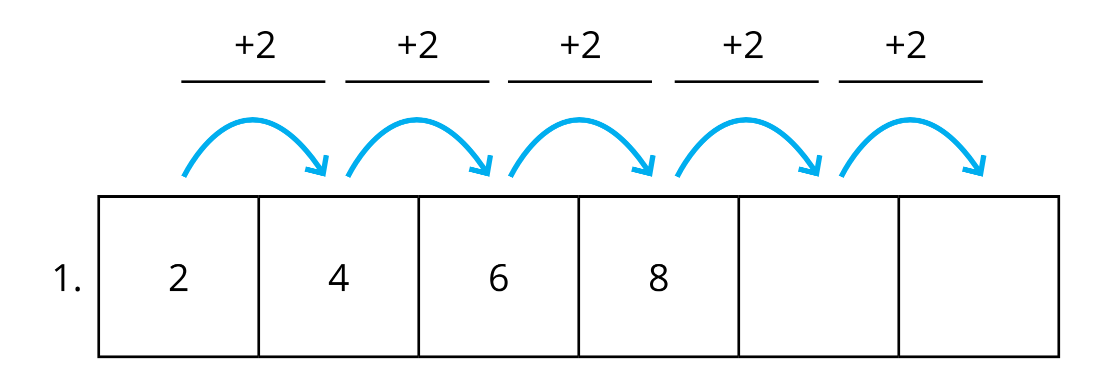
LESSON 73: MATH JOURNAL

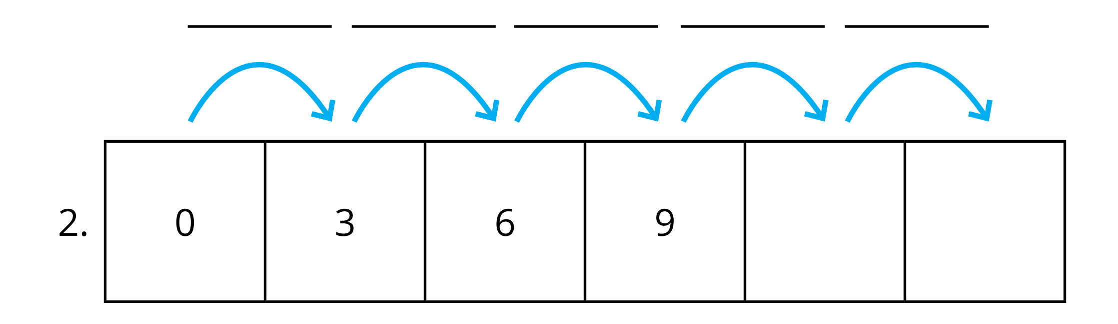
Directions: Reflect on your learning. Color even numbers red and odd numbers blue. What patterns do you observe?

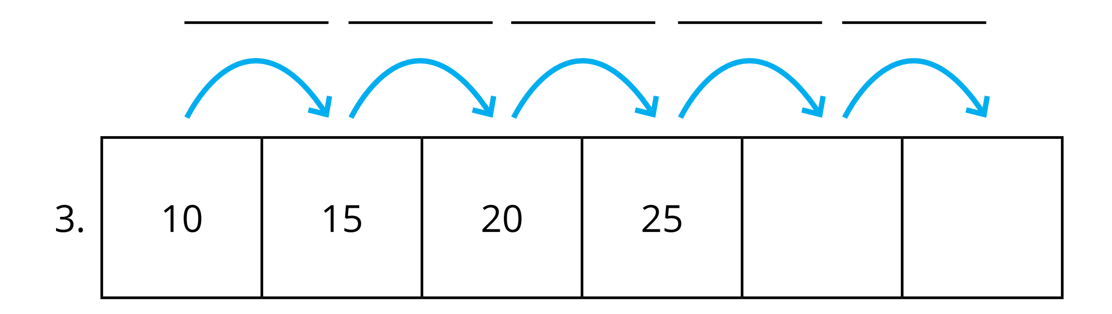


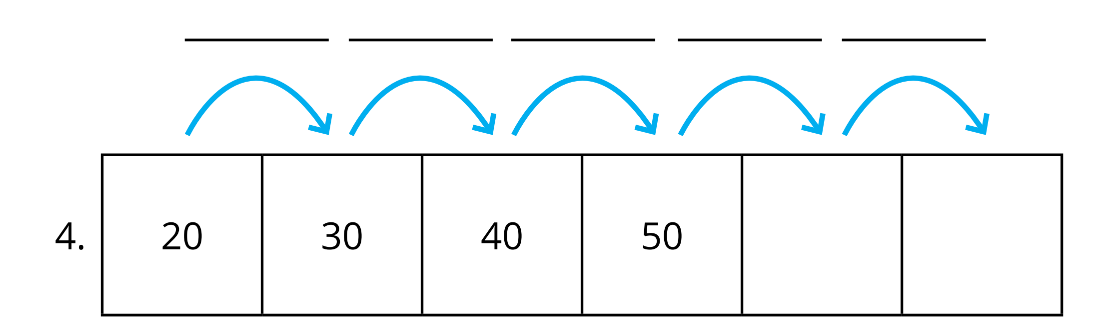
LESSON 74: APPLY

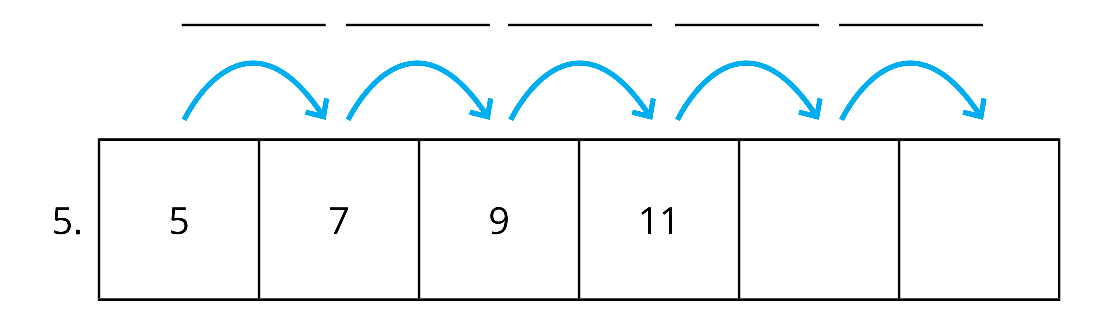
Directions: Complete the number pattern. Write the next 2 numbers in the pattern.

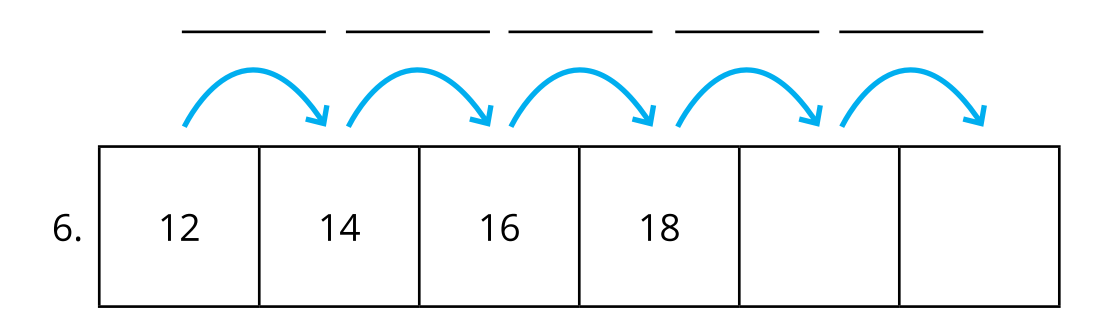


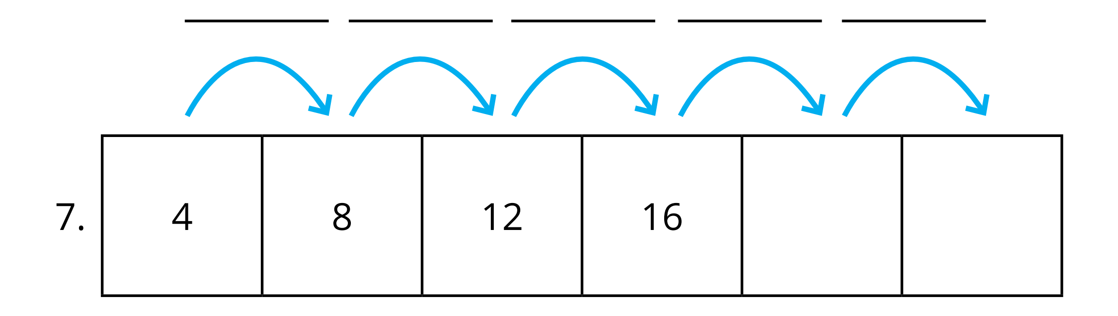





4.
20
30
40
50


5.
5
7
9
11


6.
12
14
16
18


7.
4
8
12
16

LESSON 76: APPLY

Directions: For each pattern, identify the rule, draw a line to match the pattern to its rule, and complete the pattern.

PATTERN			RULE
1. 75, 66, 57, ______ , ______ , ______ , ______ , ______	●	●	– 3
2. 30, 40, 50, ______ , ______ , ______ , ______ , ______	●	●	+ 6
3. 12, 18, 24, ______ , ______ , ______ , ______ , ______	●	●	– 9
4. 66, 70, 74, ______ , ______ , ______ , ______ , ______	●	●	+ 4
5. 90, 80, 70, ______ , ______ , ______ , ______ , ______	●	●	– 10
6. 27, 24, 21, ______ , ______ , ______ , ______ , ______	●	●	+ 10

LESSON 76: MATH JOURNAL

Directions: Reflect on your learning. Create a number pattern that involves addition or subtraction. Write the pattern and the rule.

LESSON 77: APPLY

Directions: Use the given rule to finish the number pattern.

Rule: +5, –1

34, ______ , ______ , ______ , ______

Directions: When your teacher tells you, create your own number pattern and rule.

Rule: ____________________________________

______ , ______ , ______ , ______ , ______



LESSON 78: APPLY

Directions: Glue your favorite array that you made today onto this page.

LESSON 78: MATH JOURNAL

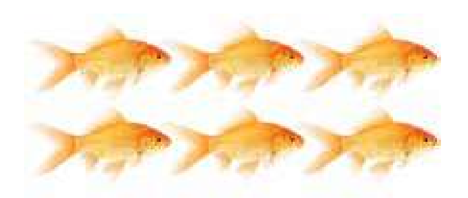
Directions: Reflect on your learning. Why might it be important to know about arrays? How might we use arrays? Write or draw your thoughts and ideas.

LESSON 79: APPLY

Directions: Count the rows and write the addition equation. Then count the columns and write the addition equation.

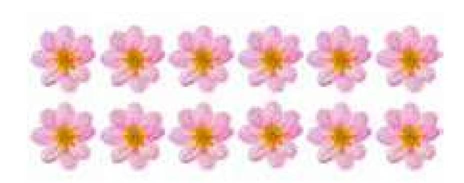
Rows: ________ ______________________________

Columns: ________ ______________________________



Rows: ________ ______________________________

Columns: ________ ______________________________



Rows: ________ ______________________________

Columns: ________ ______________________________



Rows: ________ ______________________________

Columns: ________ ______________________________



Rows: ________ ______________________________

Columns: ________ ______________________________

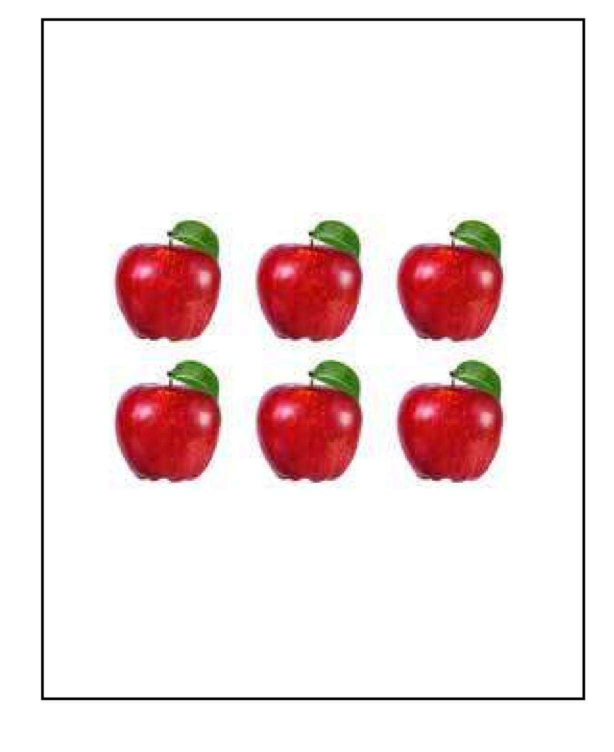
LESSON 79: MATH JOURNAL

Directions: Reflect on your learning. Where have you seen arrays in the real world? Write about or draw your ideas.

LESSON 80: APPLY

Directions: Solve the array. Write the equations.

1.



Rows: ________

Columns: ________

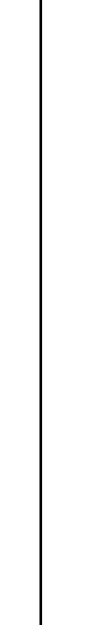
________________ = ________

________________ = ________

This is a ________ by ________ array.

Directions: Create an array, and then trade books with your partner. Your partner will fill in the box below. You will fill in the box in your partner's book.

2.



Rows: ________

Columns: ________

________________ = ________

________________ = ________

This is a ________ by ________ array.

LESSON 81: APPLY

Directions: Use front-end estimation to rewrite the problems. Then estimate the results of sum or difference.

1. Estimate: 32 + 54 ☐ + ☐ = ☐

2. Estimate: 93 – 41 ☐ – ☐ = ☐

3. Estimate: 53 + 15 ☐ + ☐ = ☐

4. Estimate: 86 – 25 ☐ – ☐ = ☐

5. Estimate: 57 + 22 ☐ + ☐ = ☐

6. Estimate: 72 – 54 ☐ – ☐ = ☐

7. Estimate: 35 + 92 ☐ + ☐ = ☐

8. Estimate: 234 + 140 ☐ + ☐ = ☐

9. Estimate: 581 – 348 ☐ – ☐ = ☐

10. Estimate: 378 + 234 ☐ + ☐ = ☐

LESSON 82: APPLY

Directions: Write the numbers your teacher gives you. Use the blank number line to help you round each number to the nearest Ten.



Number		The results to the nearest 10
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

LESSON 83: APPLY

Directions: Show your work and record your estimates in the box that matches the problem. Circle the estimation strategy you used.

A. Front-end estimation Rounding	B. Front-end estimation Rounding
C. Front-end estimation Rounding	D. Front-end estimation Rounding
E. Front-end estimation Rounding	F. Front-end estimation Rounding

LESSON 83: MATH JOURNAL

Directions: Reflect on your learning. Which estimation strategy do you prefer—front-end estimation or rounding? Write or draw your thinking and explanation.

LESSON 84: APPLY

Directions: Use the place value mat to solve the addition problems. Record your answers.

1. $52 + 27 = \square$

2. $68 + 24 = \square$

3. $67 + 25 = \square$

4. $38 + 56 = \square$

5. $64 + 28 = \square$

6. $\begin{array}{r} 56 \\ +\ 29 \\ \hline \end{array}$

7. $\begin{array}{r} 28 \\ +\ 28 \\ \hline \end{array}$

8. $\begin{array}{r} 76 \\ +\ 15 \\ \hline \end{array}$

9. $\begin{array}{r} 29 \\ +\ 57 \\ \hline \end{array}$

10. $\begin{array}{r} 44 \\ +\ 39 \\ \hline \end{array}$

Tens	Ones

LESSON 84: MATH JOURNAL

Directions: Reflect on your learning. Why is it sometimes necessary to regroup to solve problems? Write or draw your thinking.

LESSON 85: APPLY

Directions: Solve the addition problems. Use straws or drawings to help you regroup.

1. 18 + 24 = ________
2. 32 + 18 = ________
3. 47 + 37 = ________
4. 53 + 26 = ________
5. 75 + 19 = ________

Tens	Ones

LESSON 85: MATH JOURNAL

Directions: Reflect on your learning. Did you use straws or drawings to solve the addition problems? Why? Write or draw your explanation.

LESSON 86: APPLY

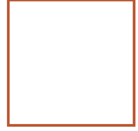
Directions: Use the place value mat to add numbers.

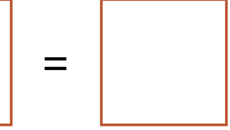
1. Addition Problem: ☐ + ☐ = ☐

2. Addition Problem: ☐ + ☐ = ☐

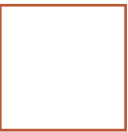


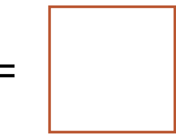
3. Addition Problem: ☐ + ☐ = ☐





4. Addition Problem: ☐ + ☐ = ☐





5. Addition Problem: ☐ + ☐ = ☐

Hundreds	Tens	Ones

LESSON 87: APPLY

Directions: Write the addition equations your teacher gives you. Draw place value pictures to represent the addends. Regroup when needed. Add to find the sum.

1. ____

Hundreds	Tens	Ones

2. ____

Hundreds	Tens	Ones

3. ____

Hundreds	Tens	Ones

4. ____

Hundreds	Tens	Ones

5. ____

Hundreds	Tens	Ones

6. ____

Hundreds	Tens	Ones

LESSON 87: MATH JOURNAL

Directions: Use what you know about mental math strategies and regrouping to solve 145 + 155. Show your work. Then, compare your answer with your Shoulder Partner's answer.

LESSON 88: APPLY

Directions: Write down the problem given by the "teacher." Solve the problem and have the "teacher" check your work. Then switch roles.



Hundreds	Tens	Ones

LESSON 89: APPLY

Directions: Work with your teacher to solve addition problems. Record your work below.

1. ______________________________

Hundreds	Tens	Ones

2. ______________________________

Hundreds	Tens	Ones

3. ______________________________

Hundreds	Tens	Ones

4. ____

Hundreds	Tens	Ones

5. ____

Hundreds	Tens	Ones

6. ____

Hundreds	Tens	Ones

LESSON 90: APPLY

Directions: Check each problem. The student's answer is in red. If the answer to a problem is incorrect, mark it with an X. If the answer to a problem is correct, mark it with a star. Correct one of the problems.

Problem 1

$$\begin{array}{r} 123 \\ +\quad 59 \\ \hline 172 \end{array}$$

Problem 2

Round 35 to the nearest ten.

30

Problem 3

$$\begin{array}{r} 99 \\ +\quad 8 \\ \hline 107 \end{array}$$

Problem 4

Round to estimate the sum of 48 + 38.

50 + 40 = 90

Problem 5

Layla baked 56 cookies. Amir baked 25 cookies. How many cookies did they bake all together?

Tens	Ones

They baked 81 cookies.

Problem 6

$$\begin{array}{r} 150 \\ +\quad 67 \\ \hline 217 \end{array}$$

Problem 7

Round to the nearest Ten to estimate the difference of 87 – 21.

80 – 20 = 70

Problem 8

Estimate the difference of 150 – 82.

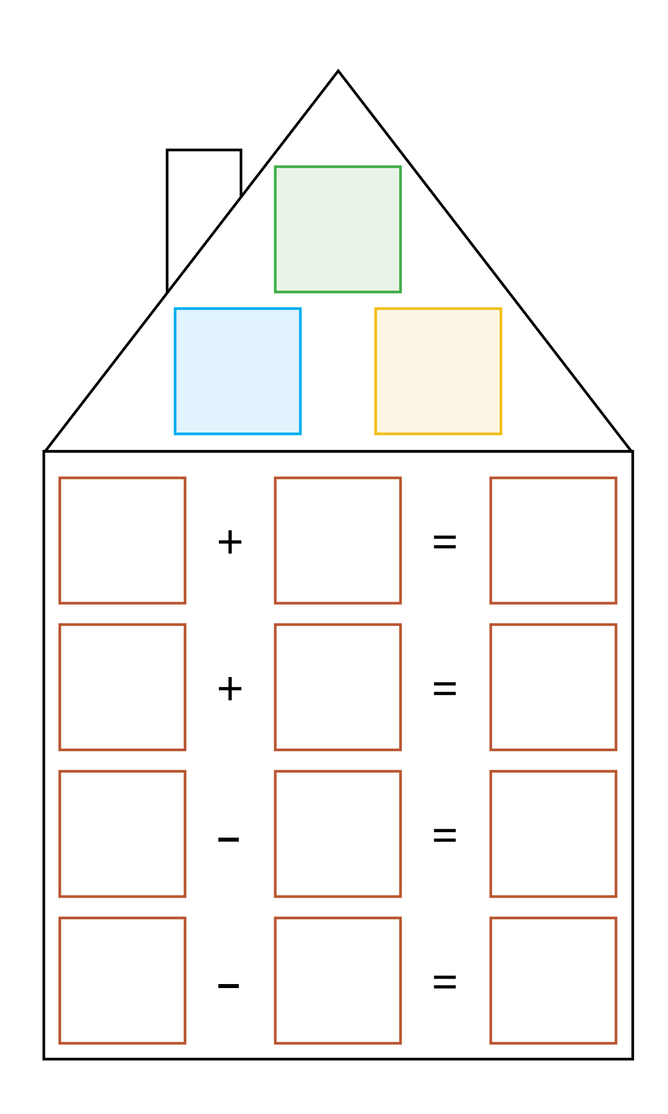
100 – 80= 20

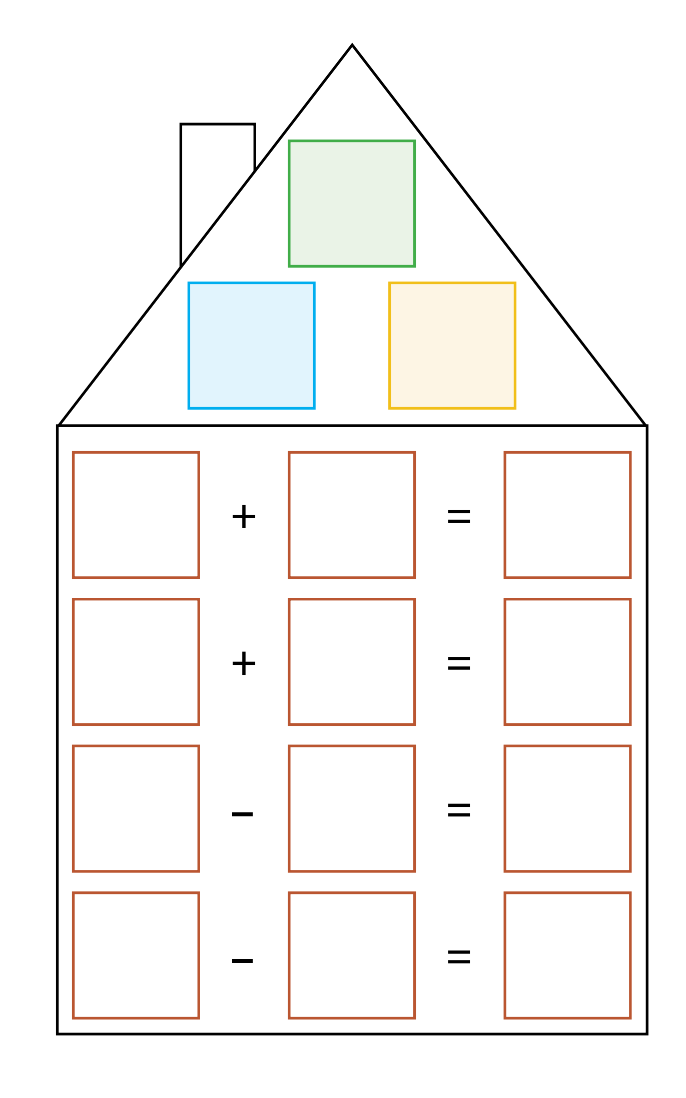
LESSON 90: MATH JOURNAL

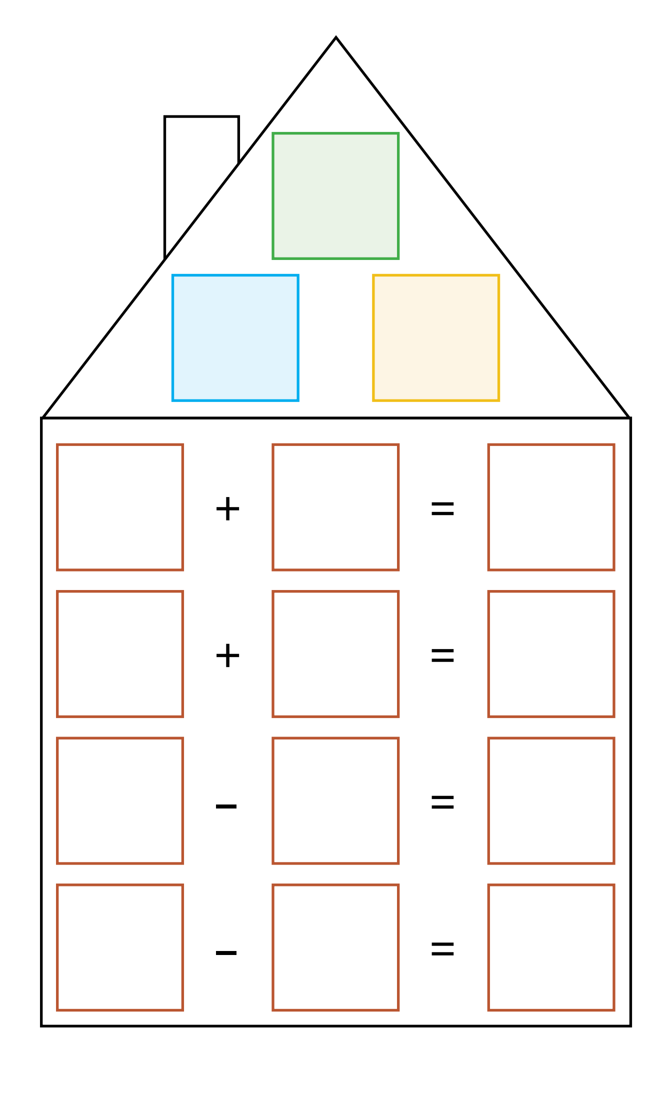
Directions: Reflect on your learning. What do you understand better now than you did ten lessons ago? What do you still need to work on or have questions about? Write or draw your response to the prompts.

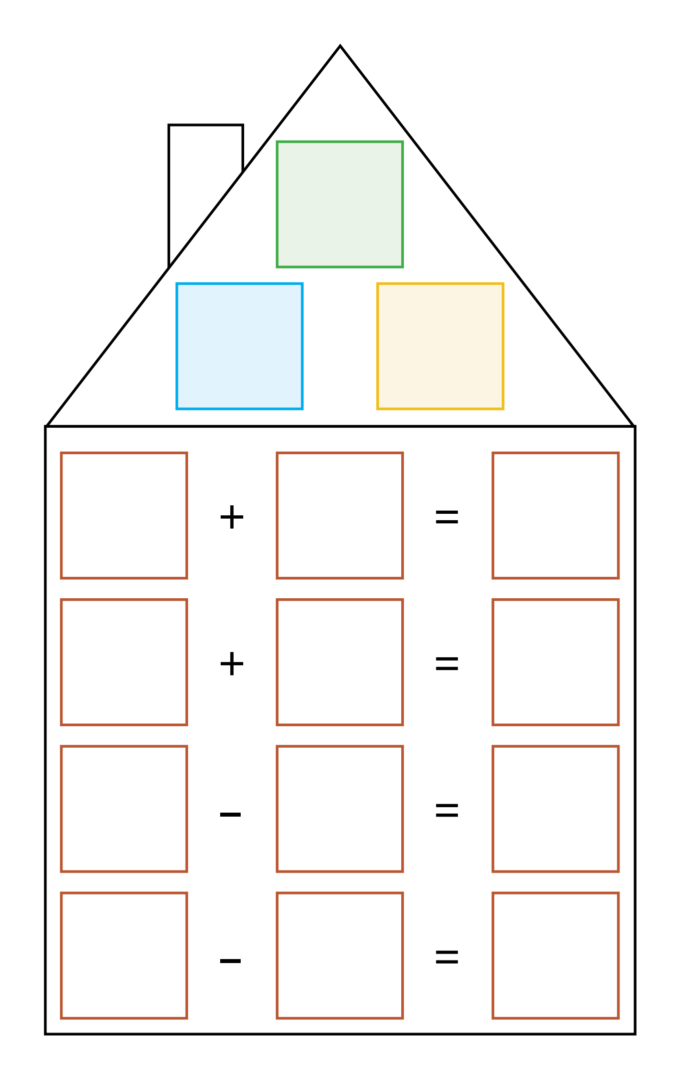
LESSON 91: APPLY

Directions: Turn over two cards and record the numbers in the blue and yellow boxes. Add the numbers together and record the sum in the green box. Complete the four number sentences using the three numbers.









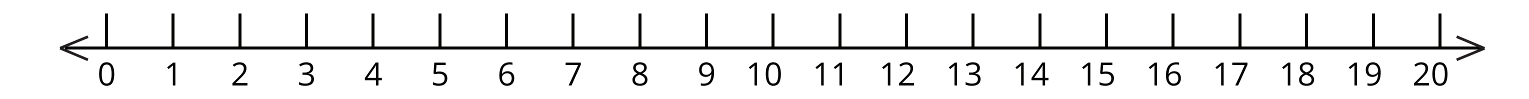


LESSON 91: MATH JOURNAL

Directions: Reflect on your learning. What is the relationship between addition and subtraction? Use pictures, numbers, or words to show your thinking.

LESSON 92: APPLY

Directions: Use the number line below to subtract. Record the difference.



1. 17 – 5 = ☐

2. 15 – 9 = ☐

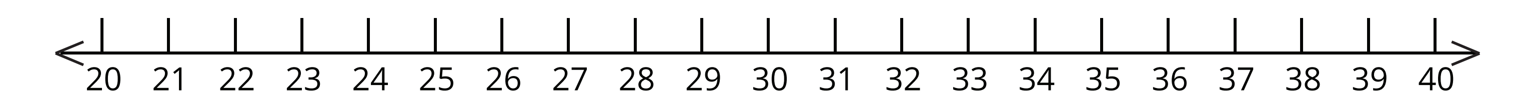
3. 18 – 12 = ☐

4. 17 – 8 = ☐

5. 16 – 9 = ☐

6. 19 – 12 = ☐

Directions: Use the number line below to subtract. Record the difference.

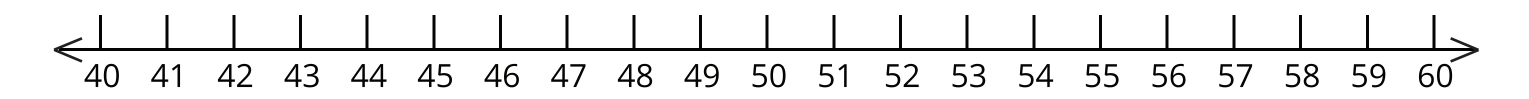


7. 38 – 15 = ☐

8. 37 – 16 = ☐

9. 28 – 8 = ☐

Directions: Use the number line below to subtract. Record the difference.



10. 52 – 9 = ☐

LESSON 93: APPLY

Directions: Solve the story problems.

1. Samir made 48 cookies. He gave 22 to his sister Dalia. How many cookies are left?

2. In the class there are 35 girls and 13 boys. How many more girls are there than boys?

3. Jana collected stamps. She had 180 stamps. She gave 20 to her brother. How many does she have left?

4. Maha and Safa had 28 gifts to wrap. They have wrapped 4. How many more do they need to wrap?

5. There were 65 people on the bus. At the first stop, 21 people got off. How many people were left on the bus?

6. Jasmine has 25 candies. Walid has 14 candies. How many more candies does Jasmine have?

LESSON 94: APPLY

Directions: Create a number and record in the box. Record three different ways to decompose that number into smaller addends on the lines provided.

1. $\square$ = ______ ______ ______

2. $\square$ = ______ ______ ______

3. $\square$ = ______ ______ ______

4. $\square$ = ______ ______ ______

LESSON 94: MATH JOURNAL

Directions: Reflect on your learning. Think about why it might be helpful to decompose a large number into smaller numbers .How could breaking up a number help you add or subtract? Give an example of a problem where breaking apart a number will help you solve it. Write or draw your answer.

LESSON 95: APPLY

Directions: Pick a Cluster Card. Record the letter of the card and solve the problems.

Card ______________________

1. ______________________
2. ______________________
3. ______________________
4. ______________________
5. ______________________

Card ______________________

1. ______________________
2. ______________________
3. ______________________
4. ______________________
5. ______________________

Card ______________________

1. ______________________
2. ______________________
3. ______________________
4. ______________________
5. ______________________

Card ______________________

1. ______________________

2. ______________________

3. ______________________

4. ______________________

5. ______________________

Card ______________________

1. ______________________

2. ______________________

3. ______________________

4. ______________________

5. ______________________

Card ______________________

1. ______________________

2. ______________________

3. ______________________

4. ______________________

5. ______________________

LESSON 95: MATH JOURNAL

Directions: Reflect on your learning. How do you solve a subtraction problem if you do not have a cluster set of problems before it? Write or draw your thinking.

LESSON 96: APPLY

Hundreds	Tens	Ones

LESSON 96: MATH JOURNAL

Directions: Reflect on your learning. Define regrouping in your own words. Use words, numbers, or pictures to explain your thinking.

LESSON 97: APPLY

Directions: Estimate the difference. Then model using your place value materials. Next, draw the problem, subtract, and record the difference. Compare the difference to your estimate.

1. 173 – 48 = ___ Estimate: ___

Hundreds	Tens	Ones

2. 148 – 29 = ___ Estimate: ___

Hundreds	Tens	Ones

1. 194 – 77 = ___ Estimate: ___

Hundreds	Tens	Ones

Hundreds	Tens	Ones

LESSON 98: APPLY

Directions: Estimate the difference. Then, draw the problem, subtract, write the difference, and then compare the difference to your estimate.

1. 329 – 179 = ___ Estimate: ___

Hundreds	Tens	Ones

2. 245 – 63 = ___ Estimate: ___

Hundreds	Tens	Ones

1. 719 – 257 = ___ Estimate: ___

Hundreds	Tens	Ones

LESSON 99: APPLY

Directions: Work with your teacher to solve subtraction problems. Record your work below.

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Hundreds	Tens	Ones

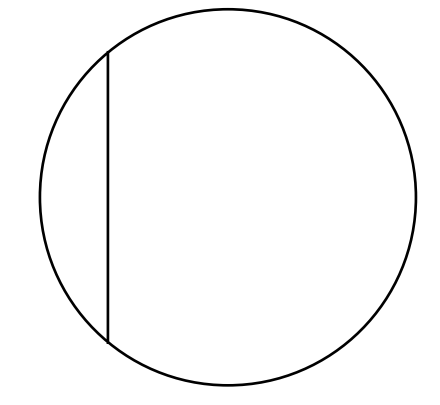
LESSON 99: MATH JOURNAL

Directions: Reflect on your learning. What have you discovered about regrouping? What is still challenging about regrouping? Think for a moment, then use words, numbers, and pictures to record your thoughts.

LESSON 101: APPLY

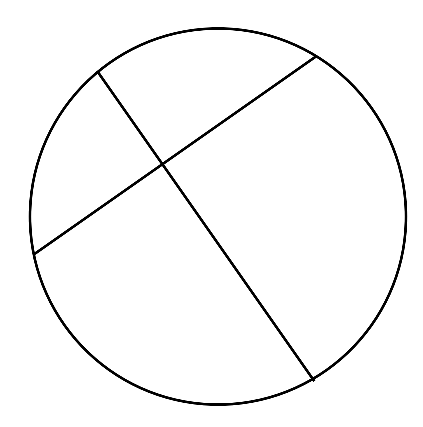
Directions: Determine if the circle is divided into equal parts or unequal parts. Circle your answer.

1\.



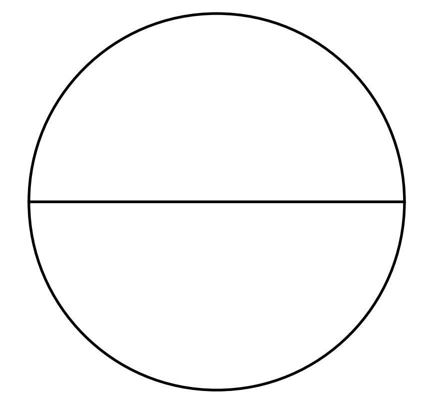
equal parts unequal parts

2\.



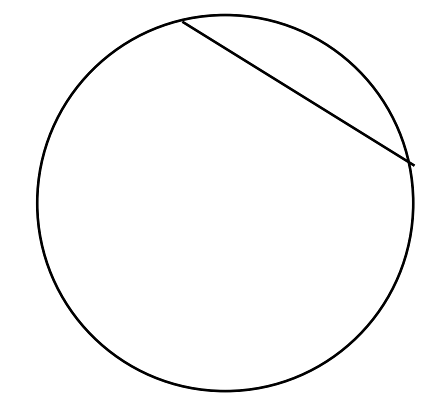
equal parts unequal parts

3\.



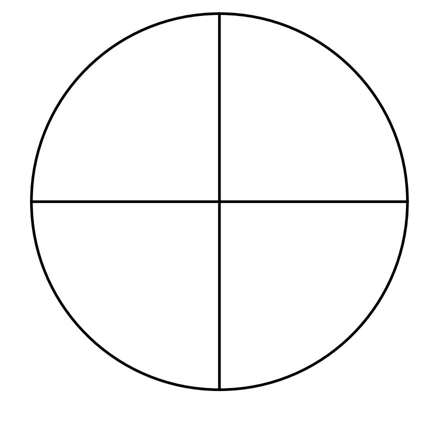
equal parts unequal parts

4\.



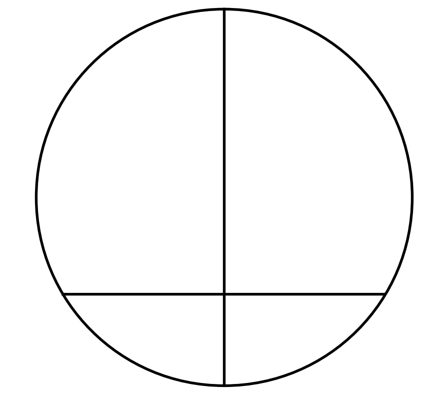
equal parts unequal parts

5\.



equal parts unequal parts

6\.



equal parts unequal parts

LESSON 101: MATH JOURNAL

Directions: Reflect on your learning. Write about or draw what you know about fractions.

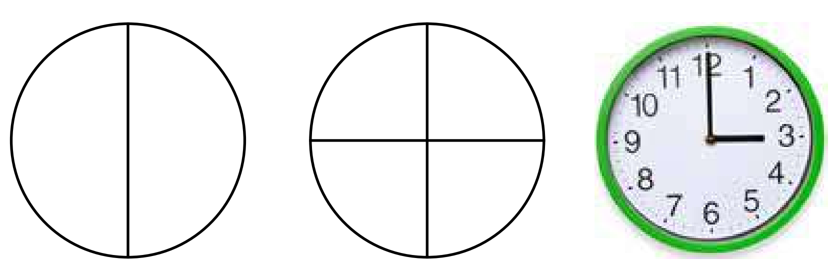
LESSON 102: APPLY

Directions: Copy the information from the class chart onto the chart below.

Fraction in pictures and numbers			
Number of equal parts			
Fraction in words			
Vocabulary			

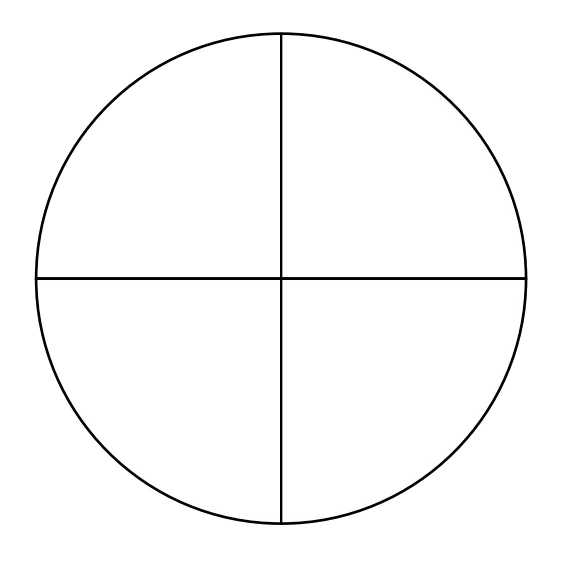
LESSON 102: MATH JOURNAL

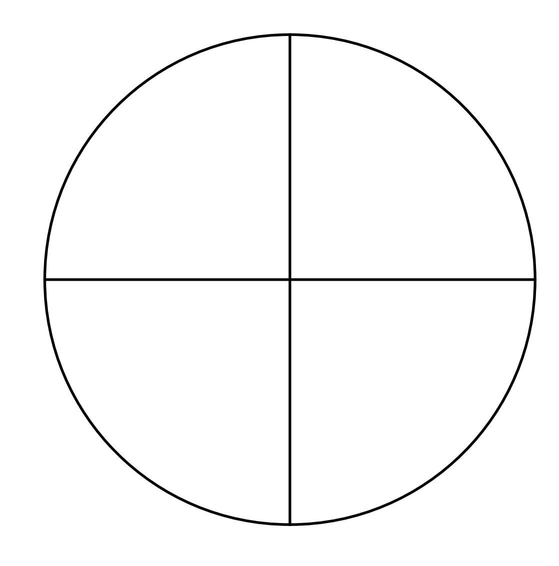
Directions: Reflect on your learning. How are a clock and a circle divided into fractions in the same ways? How are they different? Write about or draw your thinking. An example is shown below, but you can think about other times and fractions, too.

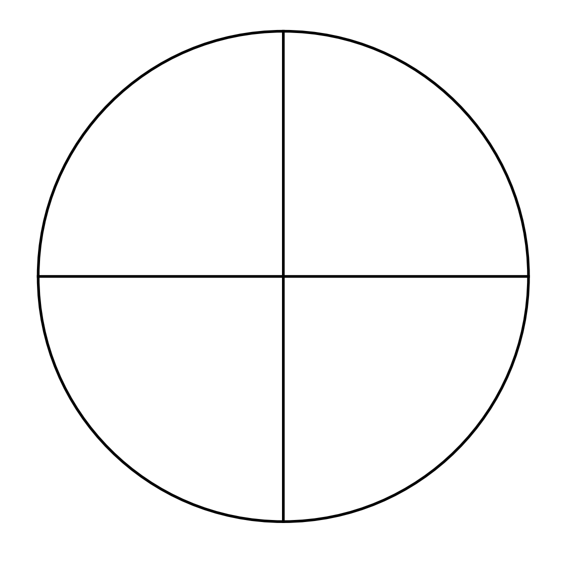


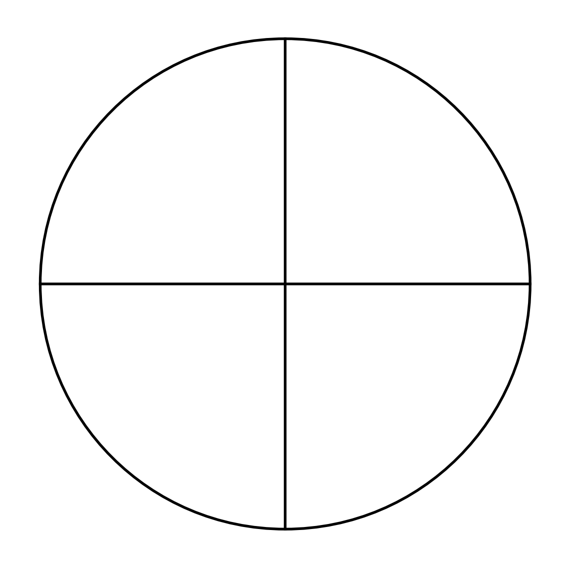
LESSON 103: APPLY

Directions: Follow your teacher's directions to shade and name fractions.





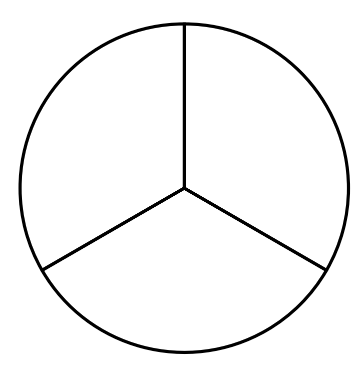




LESSON 103: MATH JOURNAL

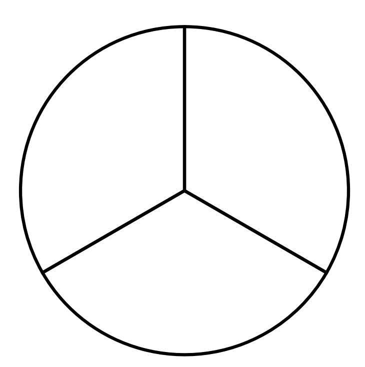
Directions: Reflect on your learning. Then follow the directions below.

1. Shade in one piece of the circle.
Then write the fraction.



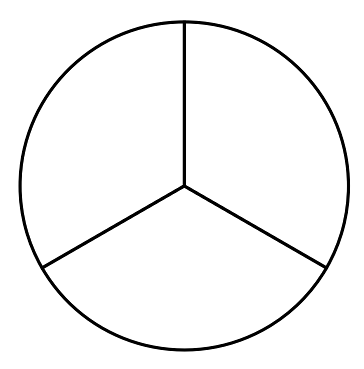
____

2. Shade in two pieces of the circle.
Then write the fraction.



____

3. Shade in three pieces of the circle.
Then write the fraction.



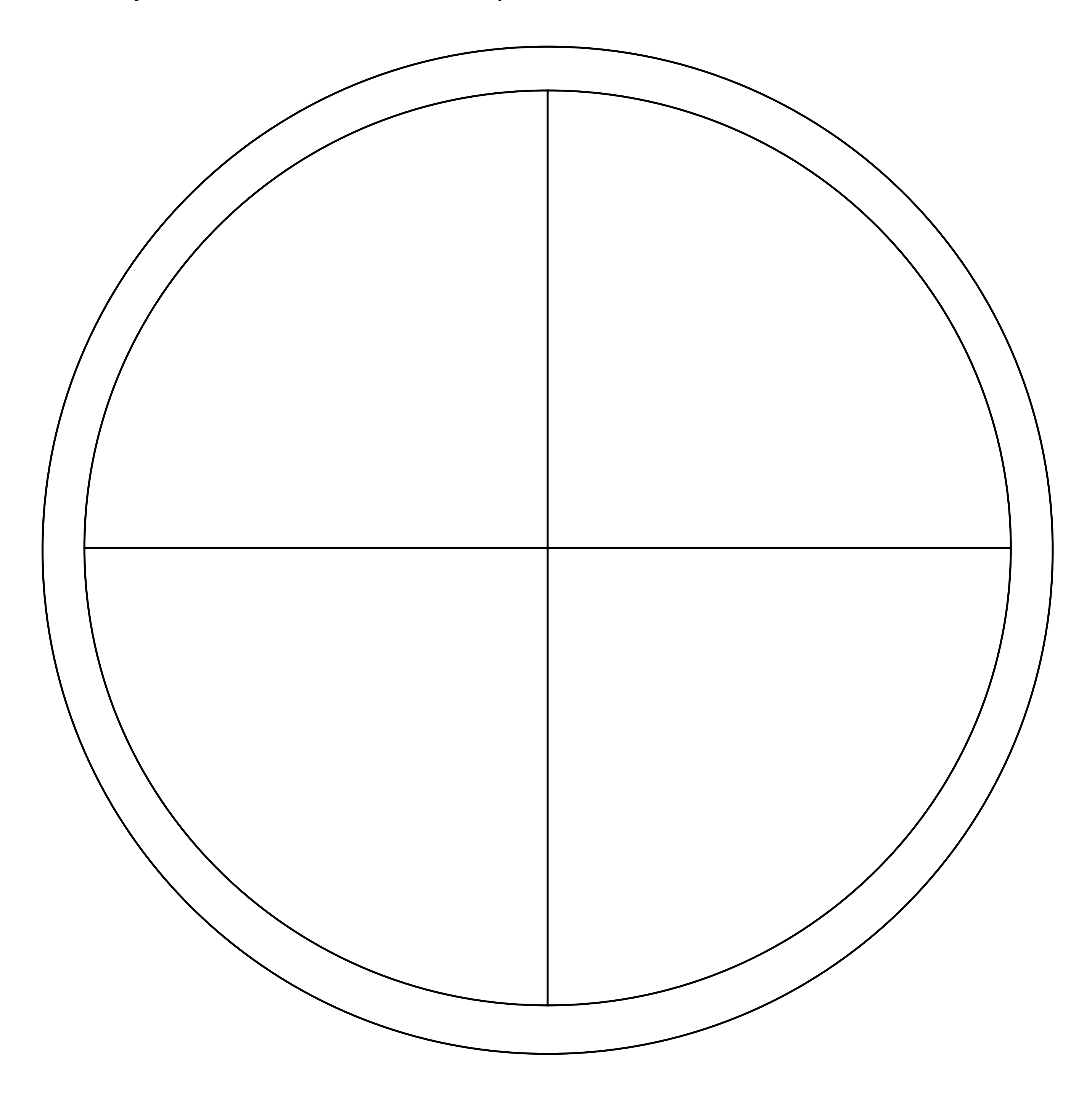
____

How did you know what fractions to write?

LESSON 103: EXTENSION: Pizza Fractions

Directions: color or draw the ingredients on the pizza based on the fraction given for each.

1. Add red sauce to the whole pizza.
2. Add green peppers to ¾ of the pizza.
3. Add black olives to ¼ of the pizza.
4. Add grey mushrooms to half of the pizza.
5. Add yellow cheese to 4/4 of the pizza.



LESSON 104: APPLY

Directions: Complete the Fraction Wall.

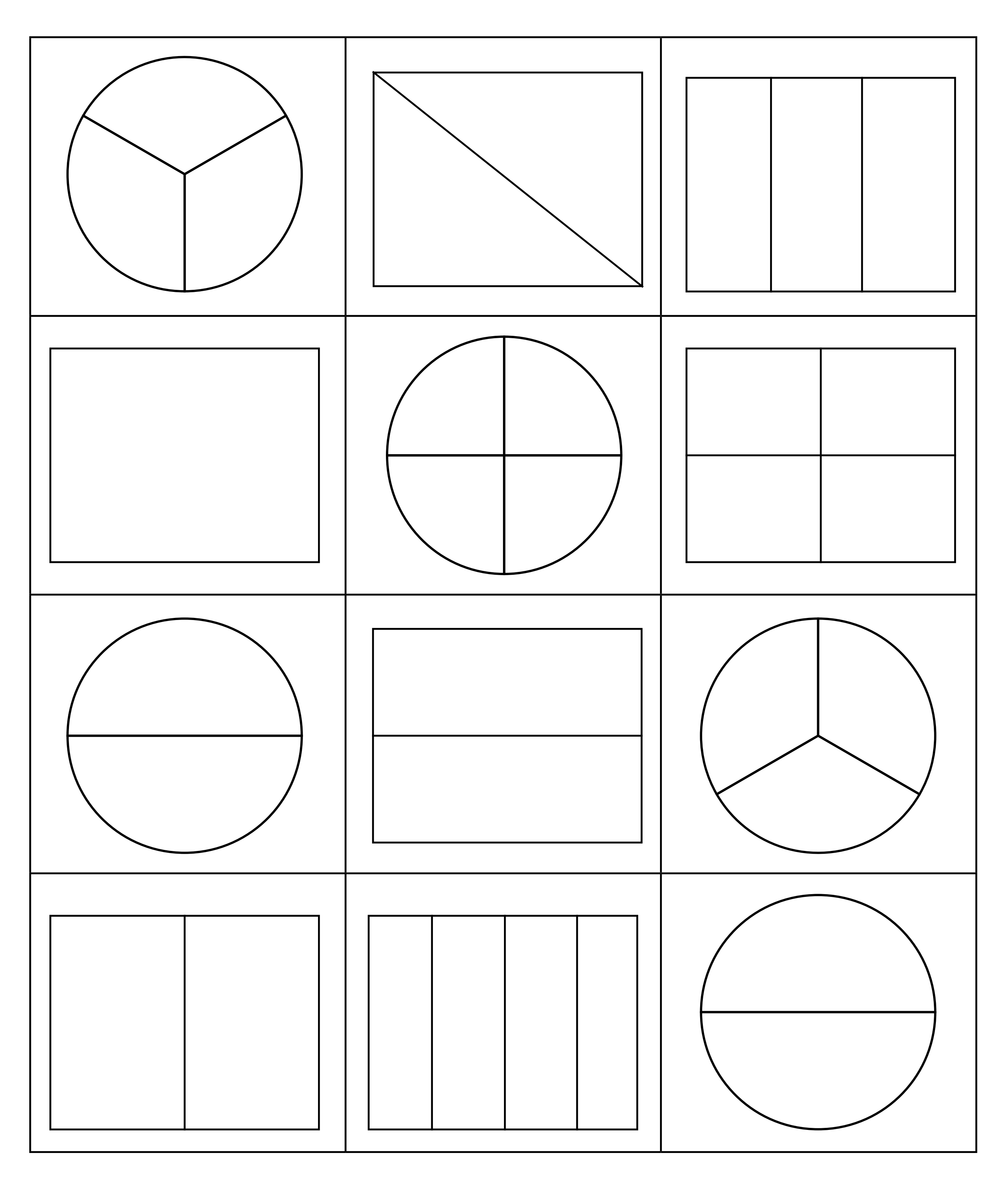
1. Write “One Whole (1)” on the top bar. Color this bar red.
2. Find and label the halves. Color the halves bars green.
3. Find and label the thirds. Color the thirds bars yellow.
4. Find and label the fourths. Color the fourths bars blue.

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<tr><td colspan="6"> </td><td colspan="6"> </td></tr>
<tr><td colspan="4"> </td><td colspan="4"> </td><td colspan="4"> </td></tr>
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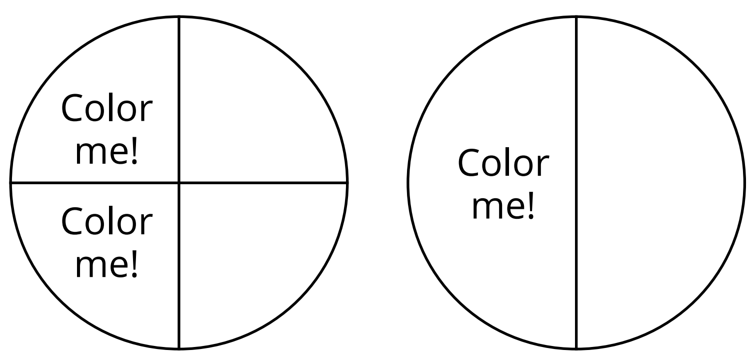
LESSON 105: APPLY

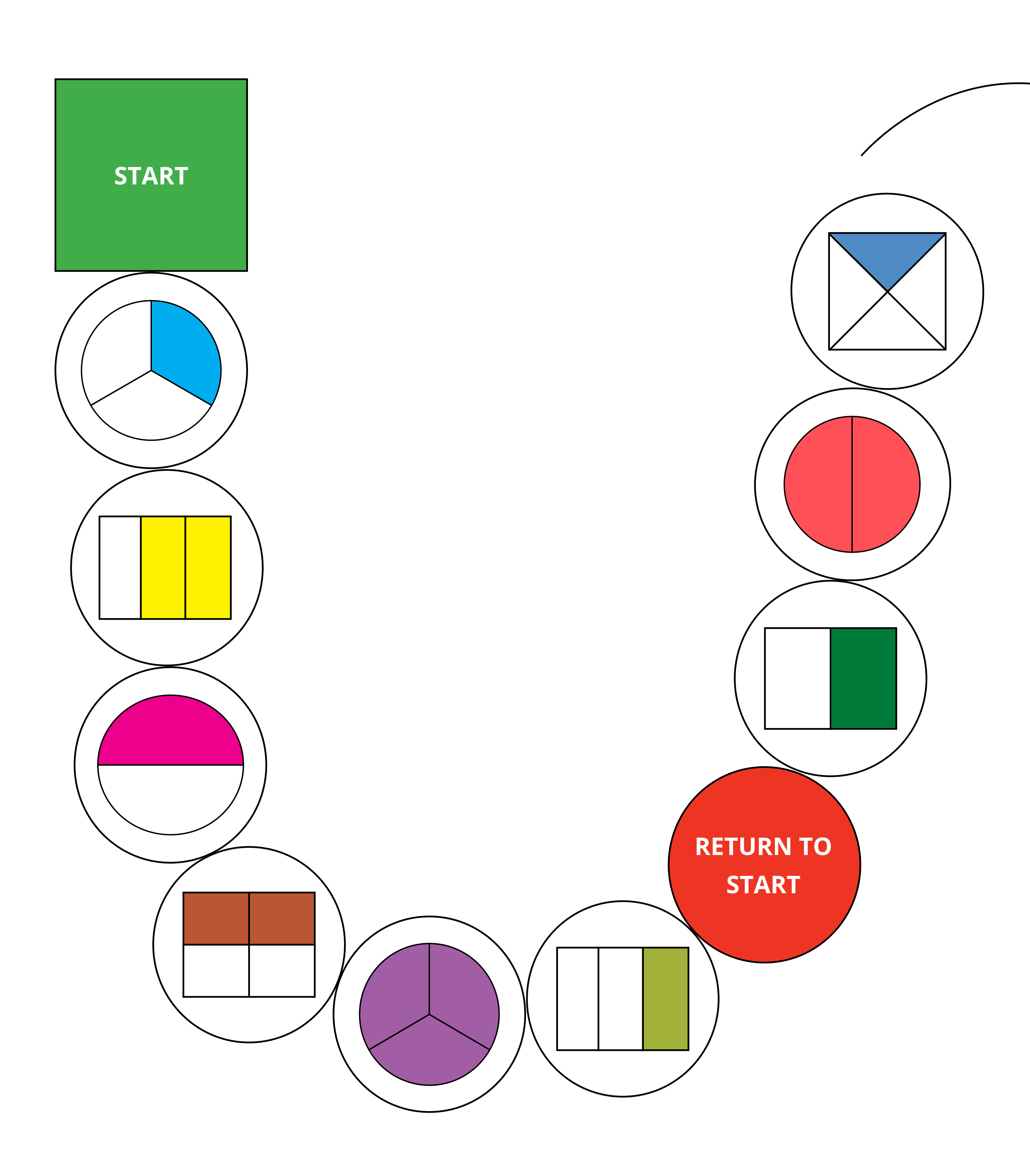
Directions: Pick a Build-a-Fraction Card. Color a shape to match the fraction on the card.

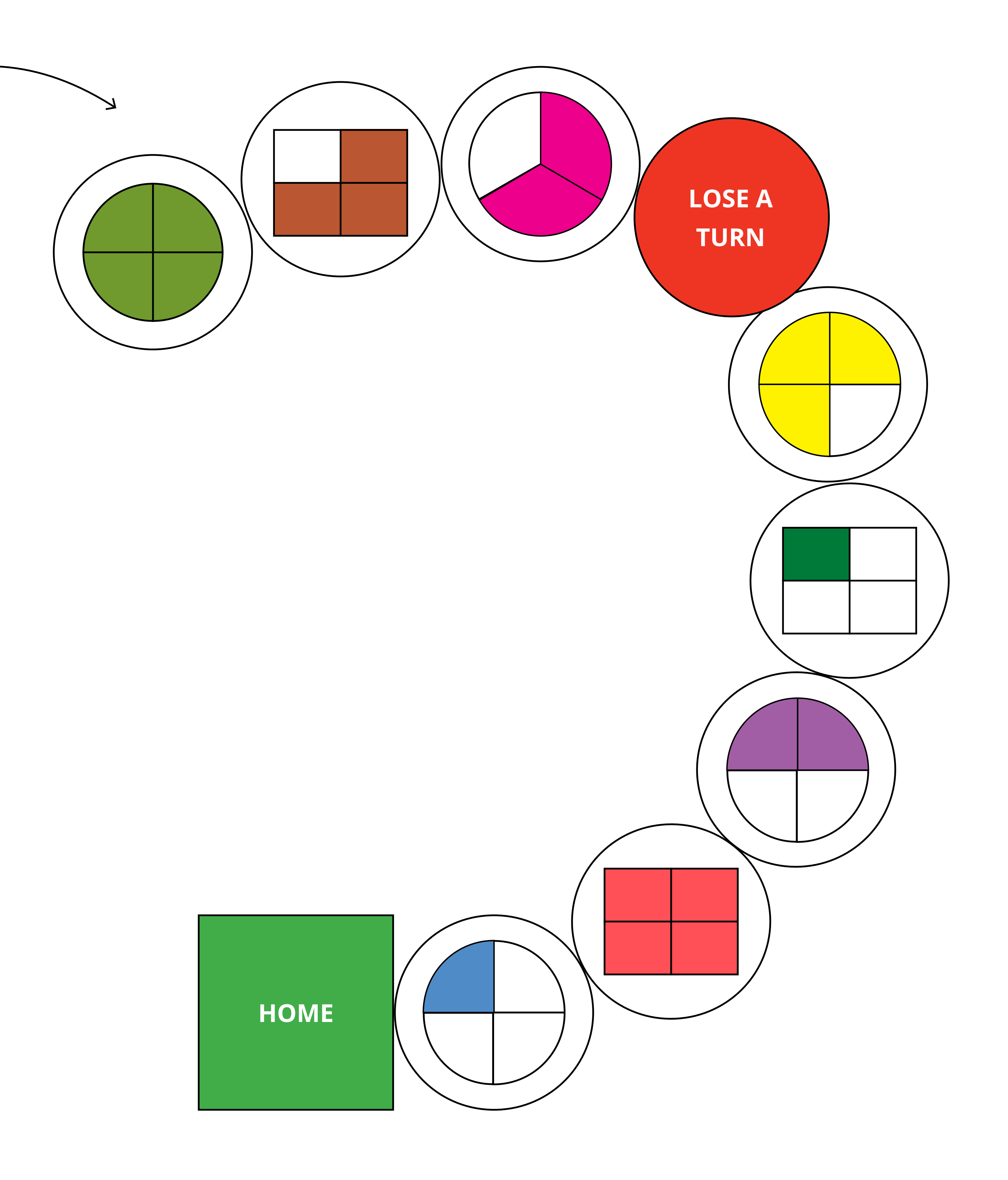


LESSON 105: MATH JOURNAL

Directions: Reflect on your learning. Are the two fractions below the same or different? Write your answer and explain why you think so below.

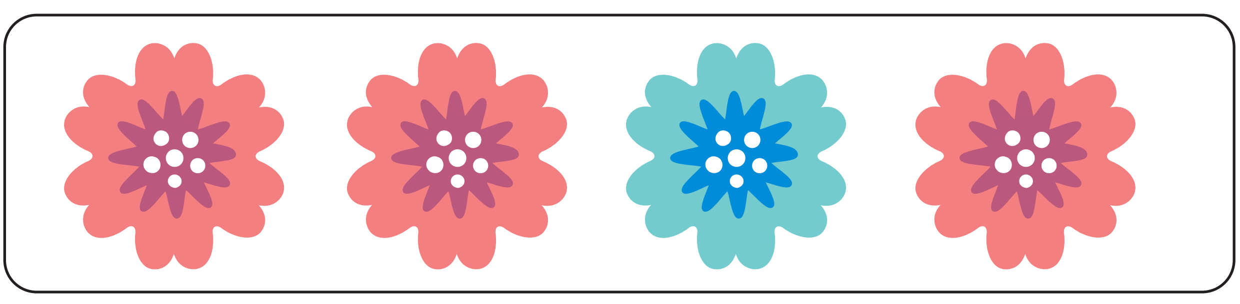



START
RETURN TO START


LOSE A TURN
HOME

LESSON 106: MATH JOURNAL

Directions: Reflect on your learning. Ashraf says that ¼ of the flowers are blue. Sara says that is incorrect since fractions cannot be used to describe sets of things. Do you agree or disagree? Why? Write or draw your explanation.



LESSON 107: APPLY

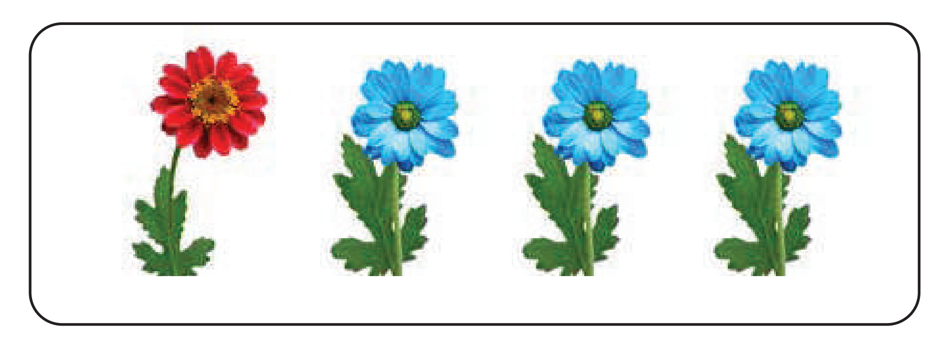
Directions: For problems 1 through 5, shake and spill the counters, draw the picture, and then record the fraction of shaded counters. For problems 6 through 10, write the fraction of red counters in each set.

1.   Fraction of shaded counters: ______________
2.   Fraction of shaded counters: ______________
3.   Fraction of shaded counters: ______________
4.   Fraction of shaded counters: ______________
5.   Fraction of shaded counters: ______________

6. Fraction of red counters: ____________
7. Fraction of red counters: ____________
8. Fraction of red counters: ____________
9. Fraction of red counters: ____________
10. Fraction of red counters: ____________

LESSON 108: APPLY

Directions: Look at each set and answer the questions below.



1. What fraction of the flower is red? ______________

2. What fraction of the flowers are blue? ______________

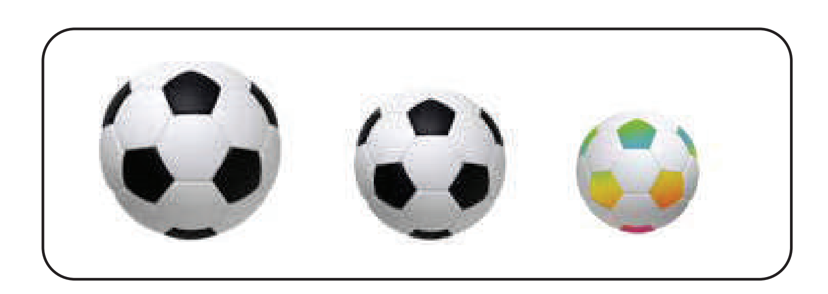
3. What fraction of the flowers are red AND blue? ______________



1. What fraction of the bikes are red? ______________

2. What fraction of the bikes are blue? ______________

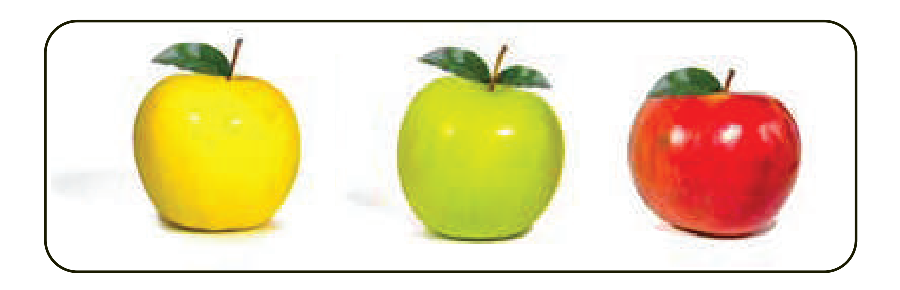
3. What fraction of the bikes are red AND blue? ______________



1. What fraction of the soccer ball is big? ______________

2. What fraction of the soccer ball is small? ______________

3. What fraction of the soccer ball is colored? ______________



1. What fraction of the apple is red? ____________

2. What fraction of the apples have leaves? ____________

3. What fraction of the apple is green? ____________



1. What fraction of the bird is blue? ____________

2. What fraction of the bird is pink? ____________

3. What fraction of the birds have eyes? ____________



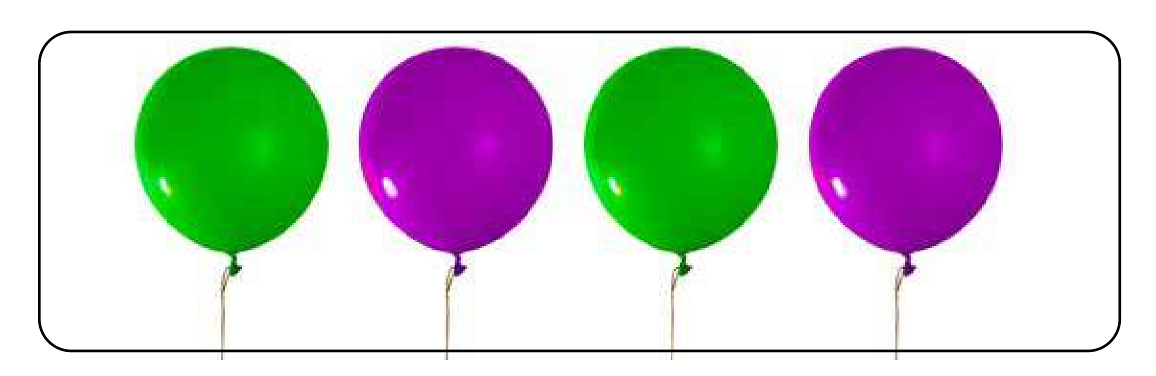
1. What fraction of the pizza has mushrooms? ____________

2. What fraction of the pizza has cheese? ____________

3. What fraction of the pizza has NO mushrooms? ____________

LESSON 108: MATH JOURNAL

Directions: Reflect on your learning. Create two questions about the fractions in the set of balloons.



1.

2.

LESSON 109: APPLY

Directions: Record your answer in the correct letter box.

A	B
C	D
E	F
G	H
I	J

LESSON 109: MATH JOURNAL

Directions: Reflect on your learning. Circle a number on the line below to represent how well you currently understand fractions. Then explain why you chose that number in the box below.

Think about:

- Do you understand what a fraction is and how to identify one?
- Can you identify fractions of a set? Can you identify fractions of a whole?
- Can you solve a story problem involving fractions?

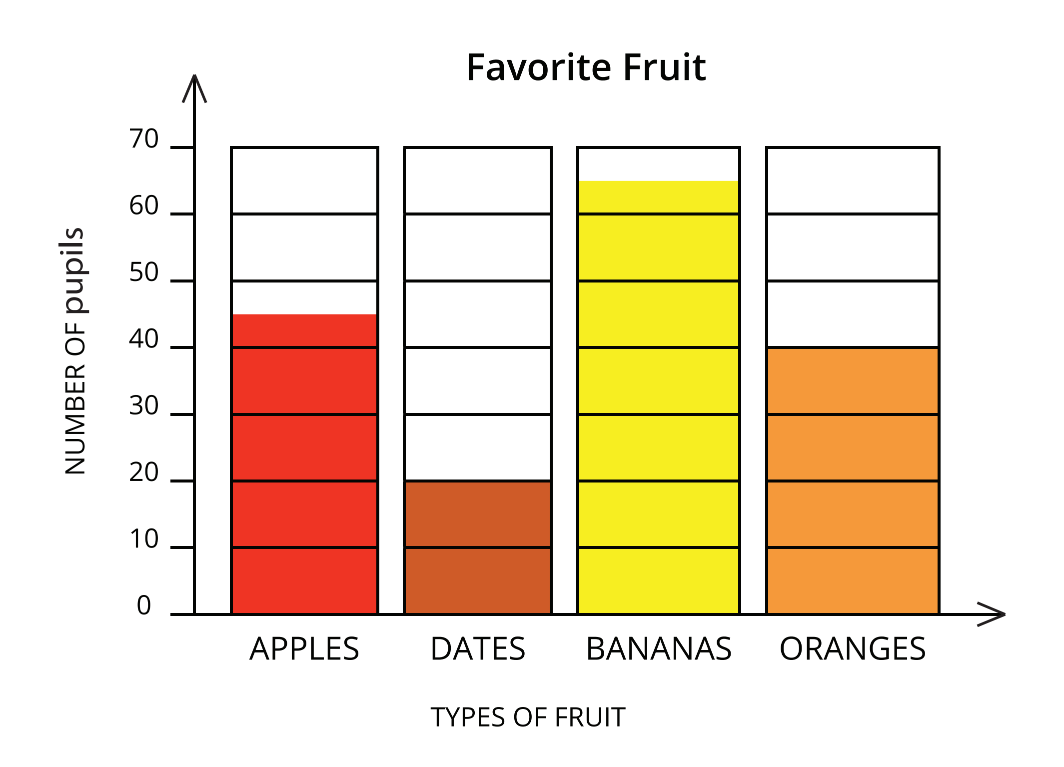
0 1 2 3 4 5

0 = I am not doing as well as I want to.

5 = I am happy with my progress.

LESSON 111: APPLY

Directions: Look at the data in the bar graph which represents 70 pupils and answer the questions below.



Questions:

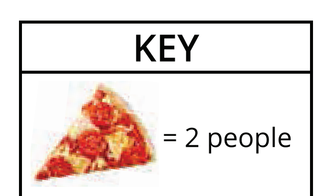
1. How many people like oranges? ______________
2. How many people like apples and bananas? ______________
3. How many more people like bananas than dates? ______________
4. What is the least popular fruit on this graph? ______________

Directions: Look at the data in the pictograph and answer the questions below.

Favorite Pizza Toppings

Green Peppers							
Cheese							
Olives							
Mushrooms							

KEY


= 2 people

Questions:

1. How many people liked cheese and green peppers? ____________

2. How many fewer people liked mushrooms than olives? ____________

3. How many people liked cheese, green peppers, and olives? ____________

4. How many more people liked cheese than green peppers? ____________

5. What is the most kind pizza topping on this graph? ____________

LESSON 112: APPLY

Directions: Make a bar graph using the data from the story The Magical Animals of Zioploris. Be sure to include a title, labels, scale, and colored bars.

Title: ______________________________

Label: ______________________________

Label: ______________________________

Directions: Write two questions about the graph, and then answer them.

My questions about the graph data:

1.

Answer:

2.

Answer:

LESSON 113: APPLY

Directions: Use the data from the part two of the story to create a pictograph below.

Title: ____________________________________

Winged Cows							
Miniature Goats							
Golden Sheep							
Rainbow Fish							

KEY

1. ____________________________________

2. ____________________________________

3. ____________________________________

LESSON 113: MATH JOURNAL

Directions: Reflect on your learning. Imagine you are going to teach someone else how to create bar graphs and pictographs. What would you tell them? What important, helpful hints would you share? What do they need to know? Write your ideas in the box below.

LESSON 114: APPLY

Directions: Write two repeated addition sentences for each array.

1.





Addition Sentences:

____

____

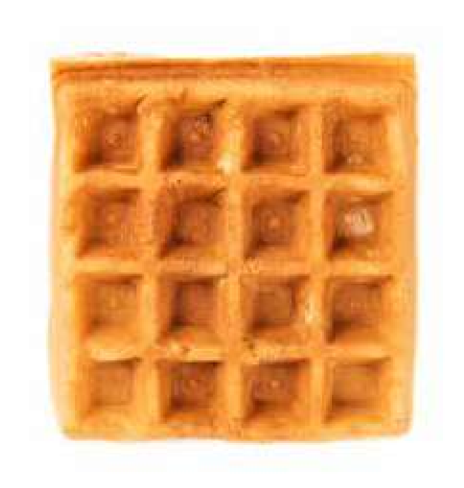
Addition Sentences:

____

____

Directions: Write a sentence comparing the two arrays.

2.





Addition Sentences:

____

____

Addition Sentences:

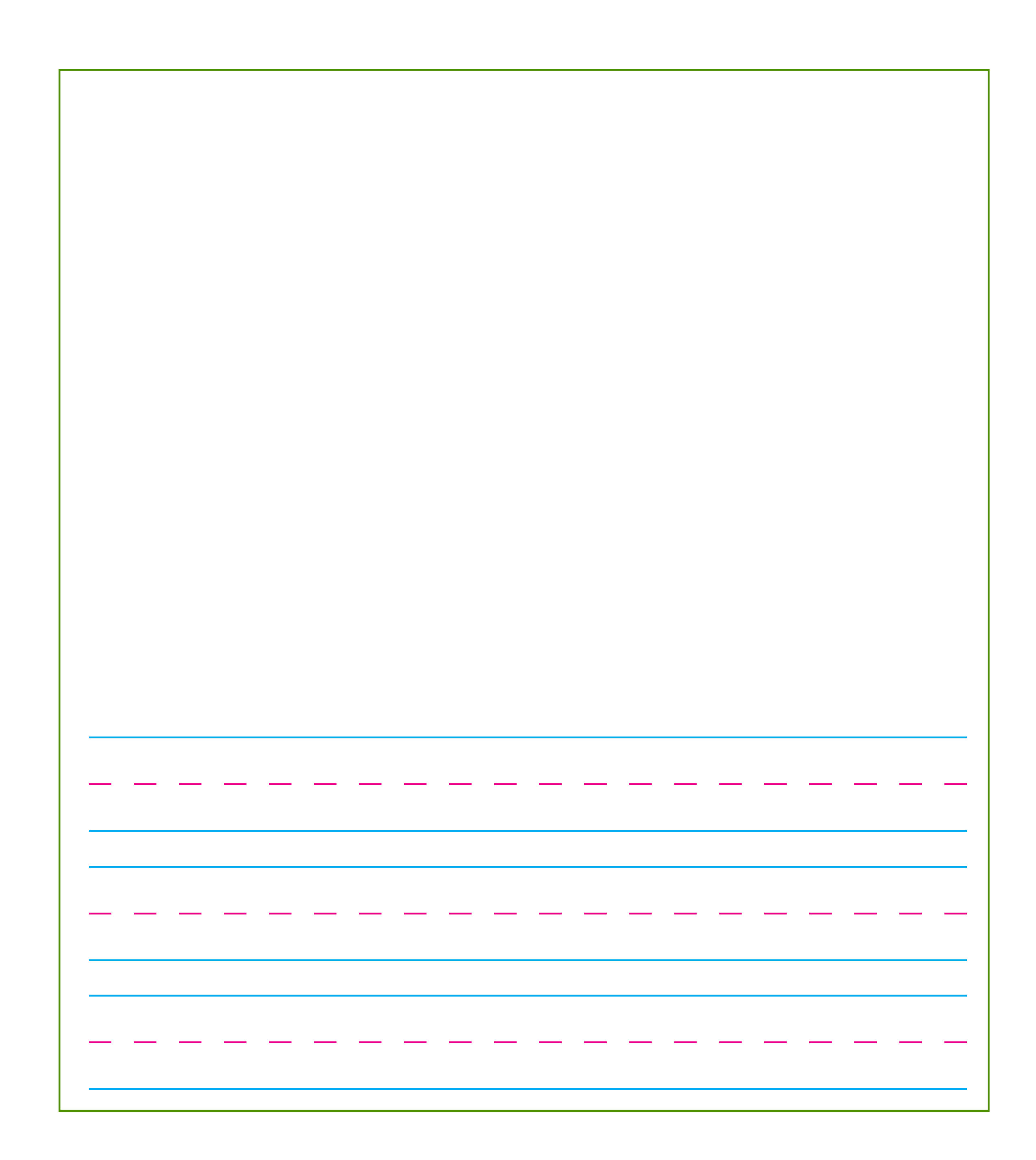
____

____

Directions: Write a sentence comparing the two arrays.

LESSON 114: MATH JOURNAL

Directions: Reflect on your learning. Then look around the classroom and find an array. Draw it below and explain how you know the object or image is an array.



LESSON 115: APPLY

Directions: Follow the steps below.

1. One partner rolls one die to find the number of rows.
2. The other partner rolls one die to find the number of columns.
3. Write the array you rolled below (rows by columns).
4. Draw the array on your grid.
    - Try to think of the best place to put your array so you can fit more arrays on your grid. The goal is to have few or no blank squares left at the end of the game.
5. Color and label the array (on the grid).
6. Write one addition sentence for the array.

1. ______ by ______

Addition sentence: ____________________

2. ______ by ______

Addition sentence: ____________________

3. ______ by ______

Addition sentence: ____________________

4. ______ by ______

Addition sentence: ____________________

5. ______ by ______

Addition sentence: ____________________

6. ______ by ______

Addition sentence: ____________________

7. ______ by ______

Addition sentence: ____________________

8. ______ by ______

Addition sentence: ____________________

ARRAY BLOCKS

LESSON 116: APPLY

Directions: Solve each problem below. Be sure to show how you solved the problem. Then compare your problem-solving strategy with your partner's strategy. If you did not get the same answer, find and correct the error.

1. 84 + 69 = ___

My strategy:

2. 93 – 67 = ___

My strategy:

3. 313 + 269 = ___

My strategy:

4. 265 – 119 = ___

My strategy:

LESSON 116: MATH JOURNAL

Directions: Reflect on your learning. In the box below, respond to the following questions.

- **What is your favorite addition strategy? Why?**
- **What is your favorite subtraction strategy? Why?**
- **Include examples to support your thinking.**

Addition

Subtraction

LESSON 117: APPLY

Directions: Choose one addition problem and one subtraction problem from the board. Write them below. Then, write a story problem for each of them. Finally, solve the problem and record your answer.

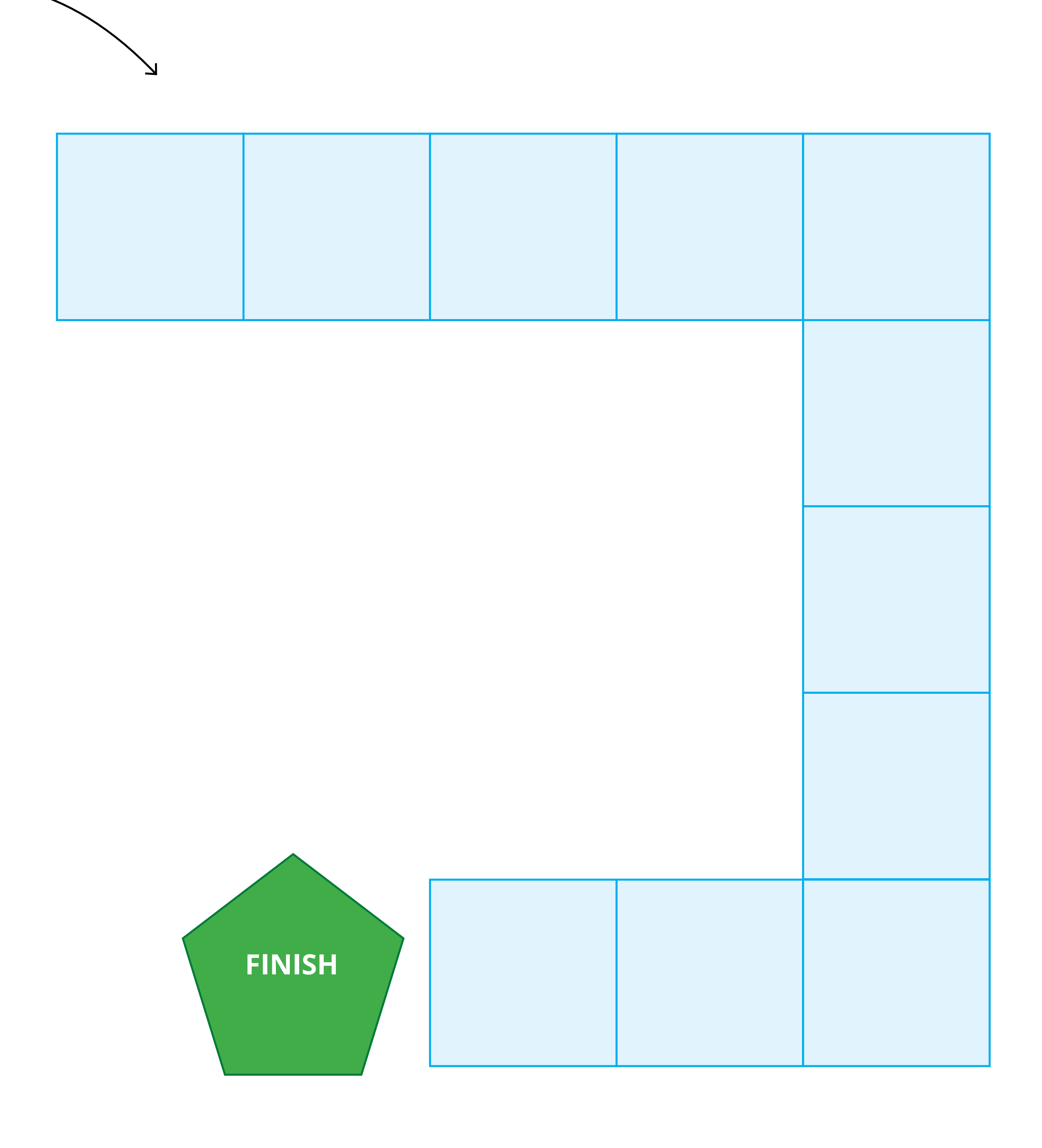
Addition problem: ☐ + ☐ = ☐

Subtraction problem: ☐ – ☐ = ☐

LESSON 118: APPLY

MATH GAME

START

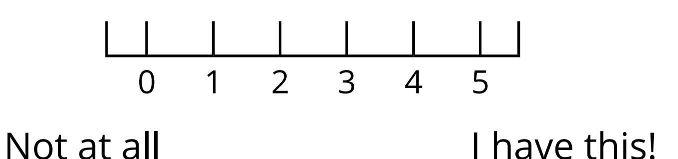

FINISH

LESSON 118: MATH JOURNAL

Directions: Reflect on your learning. Think about your answers to the questions below. Then circle a number on the line below to show how you feel about your understanding of regrouping. Explain why you chose that number.

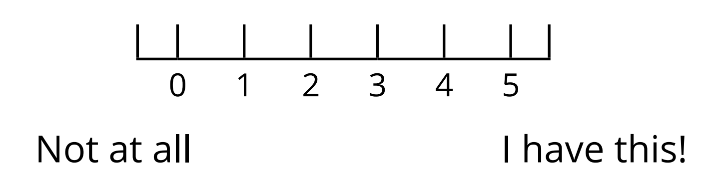
Think about:

- Do I understand how to regroup Ones and Tens?
- Can I regroup without using the place value mat or straws?
- Could I explain how to regroup to someone else?



Not at all I have this!

Regrouping with Addition



Regrouping with Subtraction



LESSON 119: APPLY

Part 1 Directions: Take notes about each area of mathematics we studied this year. Record notes in the chart below. Then select three topics to write about.

THE BIG 5 OF PRIMARY 2

Operations and Algebraic Thinking	
Numbers and Operations in Base Ten	
Measurement	

Data	
Geometry	

Part 2 Directions: Write the topics you selected at the top of the chart. Record information, examples, rules, and more about each topic.

MY TOP 3 OF PRIMARY 2

Topic 1 ___________	
Topic 2 ___________	

Topic 3	
____________________	



LESSON 120: APPLY

Directions: Write a letter to a Primary 1 student telling them about some of the mathematics they will learn in Primary 2.



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